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ABSTRACT

Presented are several data tables, charts, and analyses of trends in degrees awarded in various college majors in New Jersey higher education institutions. Tables show the total degrees awarded at all degree levels (associate, bachelor's, master's, doctoral, and first-professional) in each academic year from 1973-74 through 1978-79: changes in ratios of enrollment to degrees awarded in the higher education sectors (state colleges, community colleges, Rutgers University, and private colleges) since 1973-74; percentages of degrees awarded by level for the sectors, distribution of arts and sciences versus career and occupational degrees; and shifts in popularity of various career and occupational programs since 1973-74. The peak in degrees awarded was in 1976-77, declining slightly in the following years, with the distribution of degrees among levels remaining constant. Enrollment has increased faster than the number of degrees. Further analysis of the data is given. (MSE)

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DHE New Jersey Department of Higher Education

RESEARCH NOTE 80-1

EXECUTIVE SUMMARY

DEGREES AND OTHER FORMAL AWARDS CONFERRED BY N.J. COLLEGES AND UNIVERSITIES, BY MAJOR FIELD OF STUDY, FY 1979

U S DEPARTMENT OF HEALTH EDUCATION & WELFARE NATIONAL INSTITUTE OF EDUCATION

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February, 1980

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D.H.E. RESEARCH NOTES

TRENDS IN DEGREES AWARDED AND COLLEGE ENROLLMENTS[1]

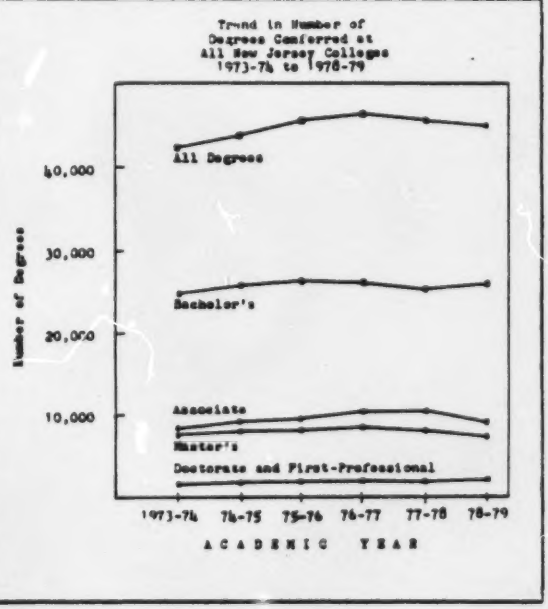
In 1978-79, colleges and universities awarded a total of 44,941 degrees. The trend over the past five years shows a peak in 1976-77 followed by slight declines the next two years, with the distribution of degrees among levels remaining fairly constant (Table 1, Figure 1).

Table 1

Total Number of Degrees Awarded by New Jersey Colleges and Universities peaks in 1976-77, Then Declines in Next Two Years. Bachelors and Doctoral Level Degrees Increased Slightly Between 1978 & 1979

	ACADEMIC YEAR					
	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79
ASSOCIATE	8,320	9,097	9,755	10,421	10,447	9,665
BACHELOR'S	24,812	25,184	25,911	25,534	25,087	25,242
MASTER'S	7,755	8,161	8,285	8,540	8,002	7,861
DOCTORATE & FIRST-PROFESSIONAL	1,752	1,834	1,908	2,381	2,077	2,173
	42,639	44,200	45,859	46,876	45,813	44,941

Figure 1



Since 1973-74, both the numbers of degrees conferred and enrollment of undergraduates have grown in all sectors except the Independent Colleges. Even so, enrollment has increased faster than the number of degrees conferred in the five-year period, so that there has been a downward trend in the ratio of degrees conferred to enrollment in all sectors except the State Colleges (Figure 2).

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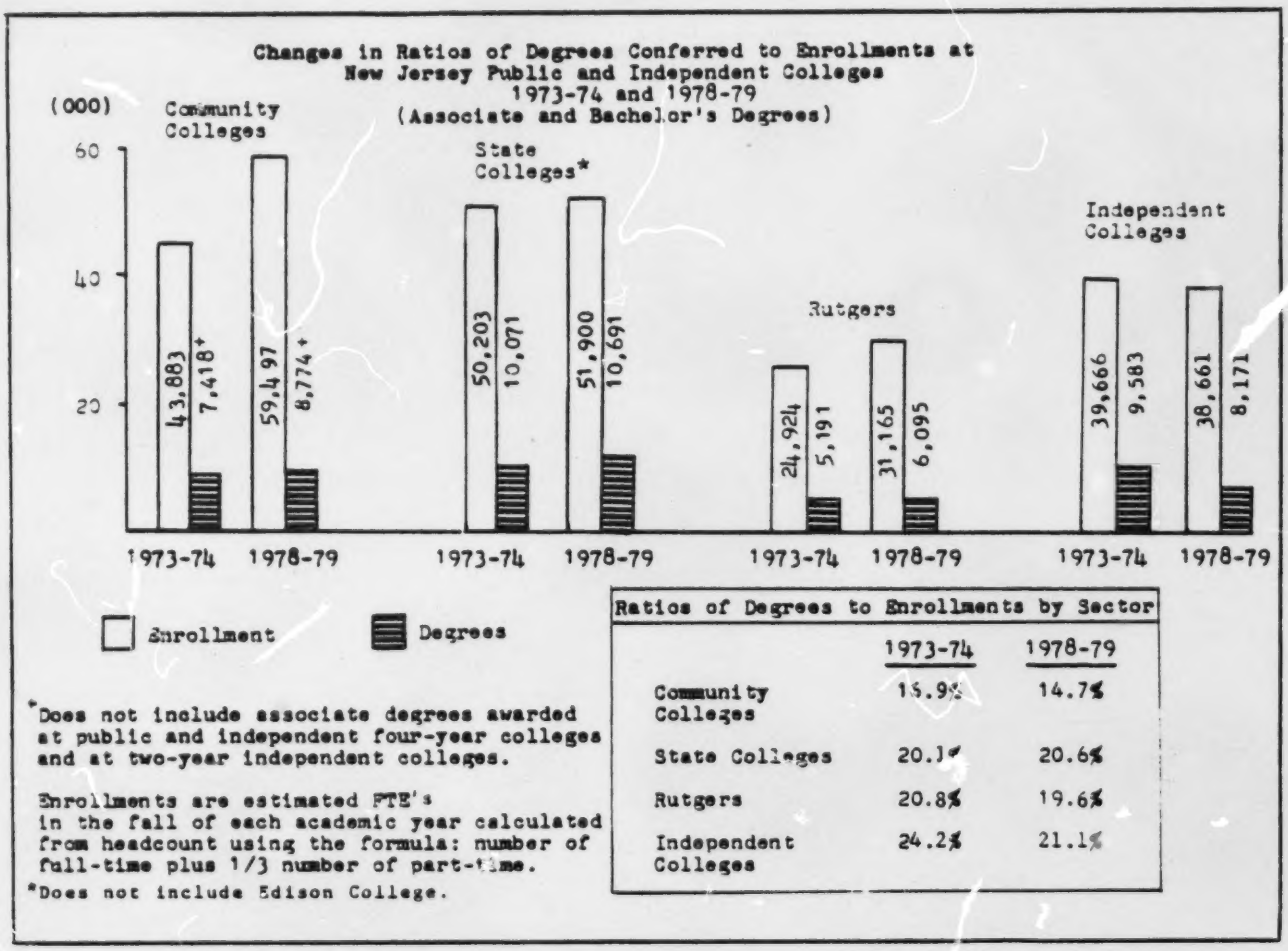
[1] Sources for New Jersey degrees conferred data are D.H.E. Research Note 77-1 and D.H.E. Research Note 80-1, (Statistical Compilations). Limited copies of these reports are available upon request from the Department of Higher Education's Office of Research, 225 West State Street, Trenton, N.J. 08625.

Figure 2



Ratios of Degrees to Enrollments by Sector	1973-74	1978-79
Community Colleges	16.9%	14.7%
State Colleges	20.1%	20.6%
Rutgers	20.8%	19.6%
Independent Colleges	24.2%	21.1%

*Does not include associate degrees awarded at public and independent four-year colleges and at two-year independent colleges.

Enrollments are estimated FTE's in the fall of each academic year calculated from headcount using the formula: number of full-time plus 1/3 number of part-time.

+Does not include Edison College.

If, at the baccalaureate level, all students were full-time, none dropped out, and all completed bachelor's degrees in four years, the maximum ratio of degrees to enrollment would be 25%. With upper-division transfer enrollments included, this ratio could be higher. At the Independent Colleges, the ratio was 21.1% in 1978-79, down from 24.2% in 1973-74. These decreasing proportions could be indicators that students are taking fewer credits and more frequently are "stopping out" of college.

At Rutgers, the ratio of degrees conferred to enrollment declined slightly, from 20.8% to 19.6%, while the ratio at the State Colleges was up very slightly from 20.1% to 20.6% over the past five years.

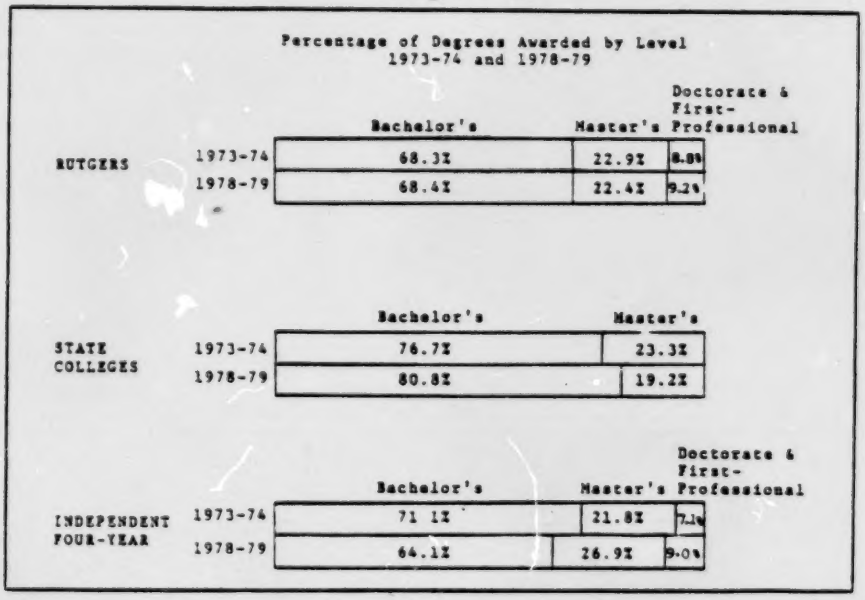
If, in the two-year colleges, all students were full-time, none dropped out, and all completed associate degrees in two years, the maximum ratio of degrees to enrollment would be 50%. In the New Jersey Community Colleges, the ratio declined from 16.9% in 1973-74 to 14.7% in 1978-79. This low ratio is due in part to the enrollment of large numbers of part-time and non-degree students at the Community Colleges. In addition, some students transfer to senior colleges before earning the associate degree, while others seek certificates and diplomas (672 in 1978-79), further reducing the ratio of degrees to enrollment.

For the nation, the most recent year for which degrees/enrollment ratio data are available is 1976-77.[2] In that year, the ratio of undergraduate (baccalaureate and associate) degrees to undergraduate enrollment was 18.4%, slightly below the 19.9% prevailing in New Jersey the same year. At the graduate levels nationally, the ratio of master's, doctorate, and first-professional degrees awarded in 1976-77 was 42.2%. In New Jersey it was close to 47.1%.

LEVELS OF DEGREES BY SECTORS

During the past five years, there was a decline in the proportion of master's degrees awarded at the State Colleges. In 1978-79, master's degrees comprised 19.2% of all degrees awarded by the State Colleges compared to 23.3% in 1973-74. For the Independents, the shift between 1973-74 and 1978-79 was in the opposite direction. Both master's and doctoral/first-professional degrees increased (in number and as a proportion of total degrees), while bachelor's degrees decreased during the same period. The proportion of master's degrees awarded by the Independent Colleges increased from 21.8% to 26.9%, the doctoral/first-professional proportion from 7.1% to 9.0%. At Rutgers, there were increasing numbers of degrees awarded at all levels, but in similar proportions (Figure 3), resulting in virtually identical distributions of degrees among the three levels in both 1973-74 and 1978-79.

Figure 3



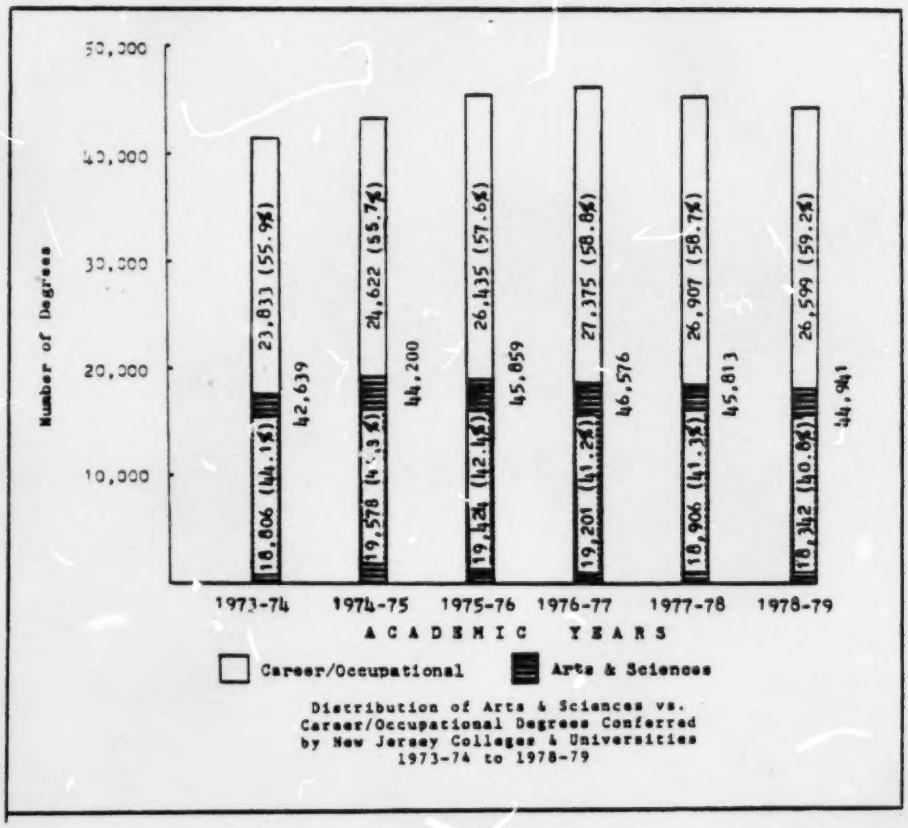
[2] Sources: Enrollment is from National Center for Education Statistics, "Fall Enrollment in Higher Education 1976", Washington, D.C., 1978, Tables 5 & 6. Data on bachelor's, master's, doctoral, and first-professional degrees are from National Center for Education Statistics, "NCES Bulletin No. 79-382", March 1979. Data on associate degrees are from unpublished NCES statistics.

ARTS & SCIENCES vs. CAREER/OCCUPATIONAL PROGRAMS

Since 1973-74 there was a decline in the proportion of degrees (all levels combined) awarded in the Arts & Sciences and an increase in the proportion of degrees awarded in Career/Occupational fields (from 44.1% to 40.8% and from 55.9% to 59.2%, respectively) (Figure 4).

In 1973-74, 50.6% of all undergraduate degrees (associate and bachelor's combined) awarded were in the Arts & Sciences. By 1978-79, however, the proportion dropped to 46.2%. The largest declines in the proportion of Arts & Sciences degrees were at the Independent Colleges (bachelor's degrees), from 51.5% to 44.6%, and at the Community Colleges (associate degrees), from 50.5% to 4[illegible].3%.

Figure 4



Distribution of Arts & Sciences vs. Career/Occupational Degrees Conferred by New Jersey Colleges & Universities 1973-74 to 1978-79

During the past five years, the growth in associate degree Career/Occupational programs occurred primarily in Business and Commerce and in Health Services Technologies (Figure 5). Since 1973-74, Business and Commerce, together with Health Services, accounted for more than three-quarters of the increase in the number of associate degrees awarded in Career/Occupational programs.

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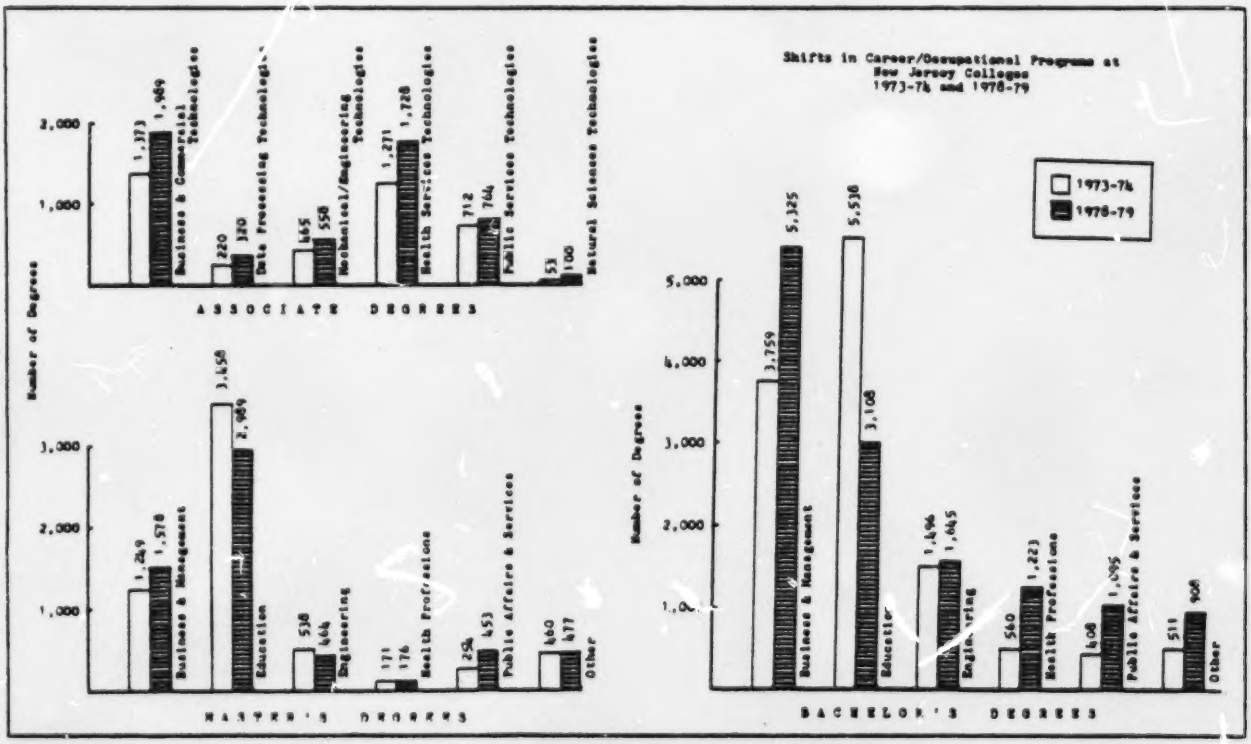
The single most dramatic shift in the occupational fields occurred in Teacher Education at the State Colleges which, in 1973-74, accounted for 74.7% of all bachelor's degrees in Career/Occupational programs at these institutions. By 1978-79, however, only 39.3% of occupational degrees were in Education. For all sectors during the five-year period, the proportion of Career/Occupational bachelor's degrees in Education dropped from 45.1% to 23.4%.

For bachelor's degrees awarded at all New Jersey colleges in Career/Occupational programs from 1973-74 to 1978-79, the proportion in Business and Management increased from 30.6% to 40.9%; Public Affairs and Services rose from 3.3% to 8.2%; and Health Professions increased from 4.6% to 9.2%.

Although the number of master's degrees in Career/Occupational fields awarded in 1978-79 remained virtually unchanged from the number in 1973-74, there was a shift from Teacher Education to the fields of Business and Public Affairs. While the number of master's degrees in Business and Public Affairs increased (26.3% and 78.3%, respectively), the number of degrees awarded in Education decreased by 13.5% during the same period. The decline in Education degrees is completely accounted for by the decrease at the State Colleges from 2,478 in 1973-74 to 1,984 in 1978-79.

Although there was some increase in the number of doctoral degrees awarded by New Jersey colleges between 1973-74 and 1978-79, more than 75% of the growth in doctoral/first-professional degrees awarded is in the first-professional fields of Law, Medicine and Theology.

Figure 5



OCCUPATIONAL OUTLOOK

Despite gloomy economic forecasts, national surveys released recently (New York Times, December 16, 1979) indicate that a strong job market awaits college graduates in 1980. The greatest demand, according to these surveys, will be in Engineering, Computer Sciences, and Business and Marketing.

The outlook in New Jersey is similar, according to Occupational Employment Projections - 1985, published by the New Jersey State Department of Labor and Industry in October, 1978. They indicate that, for New Jersey and its major labor areas, there will be demands in the next five years for Engineers, Computer Specialists, and Business Managers, as well as other occupations.

On the average, 2,250 annual job openings are projected for Engineers. In 1978-79 there were 1,645 bachelor's degrees (the job-entry level degree) awarded in Engineering. The Department of Labor and Industry projects 2,240 annual job openings for Engineering Technicians. During 1978-79 there were 558 associate degrees conferred in Mechanical and Engineering Technologies. There were 209 certificates awarded in these fields, for a total of 767 graduates with job entry education appropriate for positions as Engineering Technicians.

According to projections, there will be average annual openings for 720 Computer Specialists at various levels through 1985. In 1978-79 there were 362 bachelor's and master's degrees conferred in Computer and Information Sciences. In addition, there were 320 associate degrees awarded in Data Processing Technologies for a total of 682 degrees in computer fields. The number of graduates in Computer Technologies at all levels appears to be closely matched to the projected number of specialists needed in New Jersey.

The broad occupational category of Management, Officials, and Proprietors is projected to have average annual job openings for about 18,000 persons with various levels of education. As society becomes more complex, some postsecondary level of education is becoming necessary for entry-level positions in these fields. In 1978-79 there were 8,892 associate, bachelor's, and master's degrees conferred in business fields. With the large projected demand in managerial occupations, it can be assumed that these will be job opportunities for Arts & Sciences graduates as well as for graduates with business degrees.